

✓ ISSN: 2641-3094

⚙ Global Journal of Ecology (<https://www.peertechzpublications.com/journals/global-journal-of-ecology>)

📄 Review Article 🔓 Open Access 📝 Peer-Reviewed

Knowledge Evolution: Inert sciences to living science

Castañeda Cataña MA¹, Amato R², Sepulveda C¹ and Carlucci MJ^{1*}

+ Author and article information

Help ?

Quick Enquiry

¹Universidad de Buenos Aires-CONICET. Instituto de Química Biológica de la Facultad de Ciencias Exactas y Naturales (IQUIBICEN). Laboratorio de Virología QB19, Buenos Aires. Argentina

²Universidad de Buenos Aires, Facultad de Psicología, Argentina

***Corresponding author:** María Josefina Carlucci, Department of Chemical Biology, University of Buenos Aires, Faculty of Exact and Natural Sciences, Argentina, Tel : +54-11-5285-8704; Fax: +54-11-4576-3342; E-mail: majoc@qb.fcen.uba.ar

ORCID : <https://orcid.org/0000-0003-4422-5124> (<https://orcid.org/0000-0003-4422-5124>)

doi : [10.17352/gje.000066](https://doi.org/10.17352/gje.000066) (<https://doi.org/10.17352/gje.000066>)

Received: 15 September, 2022 | **Accepted:** 26 September, 2022 | **Published:** 27 September, 2022

Keywords: Evolution; Virus; Consciousness; Mitochondria; Biophotons; Transmutation; Networks

Cite this as

Castañeda Cataña MA, Amato R, Sepulveda C, Carlucci MJ (2022) Knowledge Evolution: Inert sciences to living science. Glob J Ecol 7(2): 082-089. DOI: [10.17352/gje.000066](https://doi.org/10.17352/gje.000066) (<https://doi.org/10.17352/gje.000066>)

Copyright

© 2022 Castañeda Cataña MA, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

+ Abstract

Modern mentality tends to minimize what is real to a physical world that is accessible to its senses, instruments, reasoning and equations, ignoring other states of reality that, clearly throughout humanity's history have been known. Modern human believes that he is capable of dispensing all knowledge from what he has been taught in the past by starting over again, trusting only their point of view and their own new prejudices. His attention increasingly focusing outwards prevents him from looking inwards, towards the center of consciousness, of being, which is, however, the first data that has been imposed on us and the basis on which necessarily everything else rests. A physical analysis of a piece of music or a painting, however scientific it might be, does not annul the meaning- so deeper and on another type of level- shows that the reality of a work of art is much more than its physical components. This objective work creates communication bonds interconnecting classical and modern science, relating different areas of knowledge. Like the invisible presence of microorganisms that participate in the evolution of nature, we intend to give a new approach to recovering the empirical knowledge long way forgotten by modern science in order to strengthen the reality of the parts that do not precede the whole, but when are born acquire sense together with the whole. Their role as "parts" is only a role in the cognitive process, not in the generative process.

Help ?

Quick Enquiry

+ Indexing and Abstracting

Export Citation ([https://search.crossref.org/?](https://search.crossref.org/?q=10.17352/gje.000066&from_ui=yes)

[q=10.17352/gje.000066&from_ui=yes](https://search.crossref.org/?q=10.17352/gje.000066&from_ui=yes)) **CrossMark**

([https://crossmark.crossref.org/dialog/?](https://crossmark.crossref.org/dialog/?doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27)

[doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27](https://crossmark.crossref.org/dialog/?doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27)) **Publons**

(<https://publons.com/search/?search=10.17352/gje.000066>)

Harvard Library HOLLIS ([https://hollis.harvard.edu/primo-explore/fulldisplay?](https://hollis.harvard.edu/primo-explore/fulldisplay?docid=TN_crossref10.17352/gje.000066&context=PC&vid=HVD2&search_scope=ev)

[docid=TN_crossref10.17352/gje.000066&context=PC&vid=HVD2&search_scope=ev](https://hollis.harvard.edu/primo-explore/fulldisplay?docid=TN_crossref10.17352/gje.000066&context=PC&vid=HVD2&search_scope=ev)

GrowKudos ([https://www.growkudos.com/search?](https://www.growkudos.com/search?q=https://dx.doi.org/10.17352/gje.000066)

[q=https://dx.doi.org/10.17352/gje.000066](https://www.growkudos.com/search?q=https://dx.doi.org/10.17352/gje.000066)) **Search IT**

([https://searchit.libraries.wsu.edu/primo-explore/fulldisplay?](https://searchit.libraries.wsu.edu/primo-explore/fulldisplay?docid=TN_crossref10.17352/gje.000066&context=PC&vid=WSU&search_scope=WS)

[docid=TN_crossref10.17352/gje.000066&context=PC&vid=WSU&search_scope=WS](https://searchit.libraries.wsu.edu/primo-explore/fulldisplay?docid=TN_crossref10.17352/gje.000066&context=PC&vid=WSU&search_scope=WS)

Google Scholar ([https://scholar.google.com/scholar?](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=10.17352/gje.000066&btnG=)

[hl=en&as_sdt=0%2C5&q=10.17352/gje.000066&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=10.17352/gje.000066&btnG=)) **Academic Microsoft**

([https://academic.microsoft.com/search?q=Knowledge Evolution: Inert sciences](https://academic.microsoft.com/search?q=Knowledge Evolution: Inert sciences to living science)

[to living science](https://academic.microsoft.com/search?q=Knowledge Evolution: Inert sciences to living science)) **Scilit** ([https://www.scilit.net/articles/search?](https://www.scilit.net/articles/search?q=%28Knowledge Evolution: Inert sciences to living science%29&highlight=1)

[q=%28Knowledge Evolution: Inert sciences to living science%29&highlight=1](https://www.scilit.net/articles/search?q=%28Knowledge Evolution: Inert sciences to living science%29&highlight=1))

Semantic Scholar ([https://www.semanticscholar.org/search?q='Knowledge](https://www.semanticscholar.org/search?q='Knowledge Evolution: Inert sciences to living science'&sort=relevance)

[Evolution: Inert sciences to living science'](https://www.semanticscholar.org/search?q='Knowledge Evolution: Inert sciences to living science'&sort=relevance)&sort=relevance) **Universite de Paris**

([https://uspc-upde.primo.exlibrisgroup.com/discovery/search?](https://uspc-upde.primo.exlibrisgroup.com/discovery/search?vid=33USPC_UPDE:UPDE&tab=Tout_sauf_ebsco&mode=basic&displayMode=full&)

[vid=33USPC_UPDE:UPDE&tab=Tout_sauf_ebsco&mode=basic&displayMode=full&](https://uspc-upde.primo.exlibrisgroup.com/discovery/search?vid=33USPC_UPDE:UPDE&tab=Tout_sauf_ebsco&mode=basic&displayMode=full&)

UW Libraries ([https://alliance-primo.hosted.exlibrisgroup.com/primo-](https://alliance-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=default_tab&search_scope=all&vid=)

[explore/search?](https://alliance-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=default_tab&search_scope=all&vid=)

[query=any,contains,10.17352/gje.000066&tab=default_tab&search_scope=all&vid=](https://alliance-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=default_tab&search_scope=all&vid=)

SJSU King Library ([https://sjsu-primo.hosted.exlibrisgroup.com/primo-](https://sjsu-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=articles&search_scope=ALL_ARTICLES)

[explore/search?](https://sjsu-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=articles&search_scope=ALL_ARTICLES)

[query=any,contains,10.17352/gje.000066&tab=articles&search_scope=ALL_ARTICLES](https://sjsu-primo.hosted.exlibrisgroup.com/primo-explore/search?query=any,contains,10.17352/gje.000066&tab=articles&search_scope=ALL_ARTICLES)

NUS Library ([https://nus.summon.serialssolutions.com/search?](https://nus.summon.serialssolutions.com/search?s.q=10.17352/gje.000066#!/search?ho=f&l=en&q=10.17352/gje.000066)

[s.q=10.17352/gje.000066#!/search?ho=f&l=en&q=10.17352/gje.000066](https://nus.summon.serialssolutions.com/search?s.q=10.17352/gje.000066#!/search?ho=f&l=en&q=10.17352/gje.000066)) **McGill**

([https://mcgill.on.worldcat.org/search?](https://mcgill.on.worldcat.org/search?databaseList=283%2C638&queryString=ti%3AKnowledge Evolution: Inert)

[databaseList=283%2C638&queryString=ti%3AKnowledge Evolution: Inert](https://mcgill.on.worldcat.org/search?databaseList=283%2C638&queryString=ti%3AKnowledge Evolution: Inert)

sciences to living science&clusterAbbreviations and Abbreviationss=on&scope=)

DET KGL BIBLIOTEK ([https://soeg.kb.dk/discovery/search?](https://soeg.kb.dk/discovery/search?query=any,contains,10.17352/gje.000066&tab=Everything&search__scope=MyInst__)

query=any,contains,10.17352/gje.000066&tab=Everything&search__scope=MyInst__

JCU Discovery ([https://jculibrary.on.worldcat.org/search?](https://jculibrary.on.worldcat.org/search?databaseList=&queryString=Knowledge Evolution: Inert sciences to living science&clusterAbbreviations and)

databaseList=&queryString=Knowledge Evolution: Inert sciences to living science&clusterAbbreviations and

Abbreviationss=true&expandSearch=on&translateSearch=off#/oclc/8654690991)

Universidad De Lima ([https://ulima.summon.serialssolutions.com/#!/search?](https://ulima.summon.serialssolutions.com/#!/search?ho=f&l=es-ES&q=Knowledge Evolution: Inert sciences to living science)

ho=f&l=es-ES&q=Knowledge Evolution: Inert sciences to living science)

WorldCat ([https://www.worldcat.org/search?](https://www.worldcat.org/search?qt=worldcat__org__all&q=Knowledge Evolution: Inert sciences to living science)

qt=worldcat__org__all&q=Knowledge Evolution: Inert sciences to living science)

DTU **VU on WorldCat** ([https://vu.on.worldcat.org/search?](https://vu.on.worldcat.org/search?databaseList=&queryString='Knowledge Evolution: Inert sciences to living science'&clusterResults=true)

databaseList=&queryString='Knowledge Evolution: Inert sciences to living science'&clusterResults=true)

ResearchGate

(<https://www.researchgate.net/search?q=Knowledge Evolution: Inert sciences to living science>)

Help ?

Quick Enquiry

+ Main article text

Introduction

What characterizes men is the desire to know, science shares, with philosophy and mystical religion, that impulse for “knowledge”. Science is often seen as a reason manifestation force and objectivity against irrational belief forces and superstition represented by religion. However, for Louis de Broglie, science, as it develops, is forced to introduce its theories and concepts that have a metaphysical scope, such as time, energy, space, objectivity, causality, etc. Science tries to give precise definitions of these concepts that exist within framework methods, avoiding any philosophical discussion regarding them:

perhaps, proceeding this way, metaphysics often does without knowing and without accepting it [1-3]. Science undoubtedly discovers many things from the natural world that surrounds us, but is it qualified to offer a complete vision of the universe and of life? Science leaves aside a huge field: consciousness and inner experience, which everything else can be known [4,5]. According to Huston Smith, reductionism error does not lie within the attempt of explaining the order of reality in terms of a totally different one. In the end, “reality” is never revealed and we always require analogous explanations...the reductionism error consists in trying to explain from a point of view what is superior from what is inferior, distorting it and relegating it is how we end up, this leads to reduce the spirit to mere material transformations. Precisely this is the reason why we are in favor of recovering the traditional views (reevaluating the modern view), which always explains the lower in terms of the higher in opposite directions, an explanatory modality that, at least, does not minimize its qualities [6,7]. On the other hand, a scientific vision needs to sustain itself, as the conception of historical progress. Although this notion is increasingly discredited, it continues to form the unconscious basis of the dominant mindset [2]. By a kind of law of nature, the new is always supposed to be superior to the old. The past is described and interpreted as an age of ignorance and superstition, while the modern age is the age that, has finally brought us true knowledge of the world after so many centuries of ravings. However, progress conception is based on complacency and a false interpretation of certain facts along with a perpetual of not looking at other facts’ dispositions [4,6]. What has been gained has been emphasized, but what has been lost is seldom seen [8]. Jacques Ellul, a French critic of our technological civilization, has observed that...” In the past, the deepest human sacred experience was his immediate contact with the natural world, the cosmos. However, today we can see that stars are hidden by street lighting, their brightness is hidden and their message is dimmed in towns and cities. The materialistic conception of the world has seriously endangered human life... The environmental destruction is the

projection of inner confusion and loss of the sacred sense” [9]. Everything has penetrated mentality in such a way that thinking in other terms has become almost impossible and is often incomprehensible and fanciful to the population [10]. According to the spiritual classical view, the universe (macrocosm) is made up, of man (microcosm), body (Greek: soma), mind or soul (psyche) and spirit (nous). In the same way as studying the human body only, no matter how exhaustive the analysis is, it does not allow us to understand its profound reality, the exclusively physical study of the universe will not allow us to understand it in depth. Different ignorance levels have given a flat image of the universe, without any vertical dimension. However, these hierarchical levels are not separated from each other, but rather form part of a continuum integrated unit [11,6]. This reality is this only ultimately unity [2]. In the words of Plotinus: a unit is needed prior to multiplicity because multiplicity comes from unity... If this was not the case, multiple beings would be in a state of dispersion and only chance would bring them together [12]. This objective work creates communication bonds interconnecting classical and modern science, relating biological systems such as microorganisms, mitochondria and DNA with energetic and philosophical systems. The purpose is to encourage research towards reviews, analyses, and empirical knowledge questions that have been denied, marginalized, or ignored in modern times, which has given value to human life, nature and Universe throughout humanity’s history.

Everything changes, flows, moves

In nature, no system is static or in perfect thermodynamic equilibrium. Everything moves flows and everything changes. Due to continuous change to which they are subjected, universe states are subject to extract energy from outside and/or energy from the vacuum, which means, absorbing external energy in the form of an implosion. In nature the Quasi-static process does not exist, adiabatic processes are idealizations and on these idealizations, laws are built over time to become dogmas. The second law of thermodynamics is just

that, a dogma, which is considered an absolute truth when it is only a principle that is fulfilled in a very specific condition on earth. But impossible to apply when we observe the high level of negentropy with which the universe appears to us [13–15]. In this same way, according to laws discovered by Faraday, it is impossible to make a motor work with the hydrogen obtained from an electrolysis cell fed by a generator and moved by that motor, since it would violate the second principle of thermodynamics. However, Hydrogen combined with usual fuels has been used in engines with great success. In 1909, after detailed experiments, Irvin Langmuir found that normal hydrogen H_2 (or water) in contact with the incandescent tungsten filament dissociated as atomic hydrogen. When these hydrogen atoms (H) recombine again to form molecules, they emit much higher energy than is absorbed to dissociate. Langmuir found no satisfactory explanation for such unusual energy. Later he found that atomic hydrogen was also produced in a voltaic arc (known among other names as Langmuir's torch), achieving temperatures unattainable by other means, which opened up great possibilities for welding. However, it was not politically or economically convenient to divulge that matter, so those findings remained silent for almost a century [16]. In 1785, Antoine Lavoisier a french chemist (1743–1794) formulated the conservation mass principle which the total mass of reactants involved in a chemical reaction were equal to a total mass of products, in other words, the matter is neither created nor destroyed, only transforms. By the end of the 19th century, transmutation, understood as one Element transformation into another from the addition of a third was something fully accepted and studied, especially by the primitive agricultural science treatises [17].

Biological transmutation history

In the 1600s, chemist Jean Baptiste Van Helmon the Flemish (1579–1644) planted a willow tree in a clay pot containing 90 kilos of oven-dried earth, for 5 years he fed the tree only with rainwater or distilled. When he removed the tree

and weighed it he found that he had gained 75 kilos, while the weight of the soil remained more or less the same. Helmont wondered if the plant hadn't converted water into firewood, bark and roots. Years later Nicolas Louis Vauquelin (1763-1842) performed an experiment that was later replicated by many subsequent scientists. He analyzed the feces of some chickens that had been fed exclusively with decalcified oats, which contains a high level of potassium (K19) and a low content of calcium oxide (Ca20), reaching the conclusion that the birds excreted up to 5 times more calcium from what they ate. There was only one possibility, birds had transmuted the potassium into calcium. At the same time, Englishman William Prout (1785-1850), reached similar results, considering when hens incubated their eggs, they had 4 times more calcium than before, a fact that he attributed to an endogenous process. Simultaneously, several scientists noticed the fact that silicon (Si14) could also transmute to calcium (Ca20), the most famous transmutation that will give rise to the "Kervran effect". Also, Albrecht Thaer (1752-1828) and Wilhelm Augustus Lampadius (1772-1842) spoke extensively about it, only the most important ones are mentioned. This intended to show that, one element fused with another could give rise to a third one, it was completely normal and accepted. First treatises within modern chemistry lasted half of the century contemplated by Lavoisier's hypothesis as Vauquelin's too, and little by little, the latter was buried and passed into oblivion. In 1882, the philosopher Wilhelm Heinrich Preuss (1815-1883) published a book entitled *Geist Und Stoff* (Spirit and Matter) where he recounted the experiments carried out between 1875 and 1883 by the Hannover Baron Albrecht Von Herzeele (1821 -?) who published his results in his book in 1883 "The origin of inorganic substances". In the said essay, Von Herzeele offers more than five hundred experimental tests with plants that show that they not only absorbed matter from the soil but that they are constantly creating it [16]. Preuss's conclusions were clear; it seemed that when life got in the way, Lavoisier's conservation law failed. Despite the importance of these discoveries, Von Herzeele's results were dismissed by the scientific authorities

of the time and his discoveries quickly fell into oblivion [18]. However, in the 1950s, Pierre Baranger, director of the organic chemistry laboratory at the University of Paris, replicated Von Herzeele's experiments. In statements collected in 1959 in the review *Science et Vie*, Baranger confirms Von Herzeele's results and this makes it possible to demonstrate that, under certain conditions, plants are capable of generating chemical elements that did not previously exist in their environment" [19]. Several scientists reached the same conclusion: life is capable of transmuting matter and putting Lavoisier in check. In the 1930s, the biochemist Rudolf Hauschka (1891-1969), a student of Rudolf Steiner, replicated Preuss's experiments over a long period of 10 years, thereby confirming all his predictions. Hauschka also discovered not only the referred materialization processes but also that the plants "dematerialized" the chemical elements following the lunar phases: ascending meant materialization, descending dematerialization [20,21]. However, it is Frenchman Corentin Louis Kervran who stood out above the rest in his study of low-nuclear temperature transmutations. Kervran left us two excellent papers, one relatively better known on transmutations in biology and a much more unknown one on transmutations in geology. Both are undoubtedly the greatest contributions to the birth of science called Nuclear Chemistry [22-24].

Kervran discoveries

Kervran discovered that the main elements involved in the transmutations range from oxygen (O8) to iron (Fe26), which means, they are the most present elements on Earth and that they form more than 99.2% of rocks, such as sodium. (Na11), magnesium (Mg12), silicon (Si14), potassium (K19), calcium (Ca20), ending with iron (Fe26). It is very important to know that Kervran did not study transmutations above iron, as other scientists such as Joe Champion and Alex Putney did [25-28]. Elements as important as lead, tin, barium, or strontium only make up the remaining 0.8% and their transmutation is more complex [16]. The fact that carbon is present is more than possible that this

transmutation is related to vital processes. Vauquelin had already shown that hens fed exclusively decalcified oats containing a high potassium index did not suffer from calcium deficiency in their bones and eggs. This fact always caught the attention of Kervran, who carried out extensive experiments to verify this transmutation, ($K + H \rightarrow Ca$), as a previous step in the study of silicon transmutation. Kervran was not content about it, however, he extended this experiment when he removed all potassium from the feed as well, showing that hens surprisingly still had no calcium deficiency in eggs or bones, even though they greatly increased their already innate tendency to swallow small quartz stones (SiO_2). Faced with this irrefutable fact, Kervran suspected that transmutation to obtain calcium was more related to silicon than to potassium. When he removed quartz from the chickens' diets, then the animals got bone disease very quickly and their bones started to have extremely soft shells. Kervran concluded that essential transmutation was the one between silicon and calcium and secondly, potassium to calcium discovered by Vauquelin. However, the one responsible for it was the *Streptomyces* bacteria. In fact, Kervran states that he knew that organic silicon, highly present in spring, had a calcifying effect, while inorganic silicon was decalcifying [23]. Other evidence of transmutation found by Kervran was the study of the quartz columns made during the construction of the Angkor Wat Temple between the 9th and 13th centuries in Cambodia, which experienced a considerable decrease in the presence of quartz (SiO_2) on the contrary, a significant increase in Calcium oxide (CaO) in the most deteriorated parts, another complete study was carried out on the pillars of the Cathedral of Strasbourg where the same effect showed, the decrease of silicon versus the increase of calcium. Something in the temple had transmuted silicon into calcium, and that something was a collection of seven different species of Actinomycetales bacteria belonging to the *Streptomyces* family, present in the deteriorated area, calcium-rich rock and absent in the

pristine, silicon-rich rock. The result, as with the temple at Angkor, is a perfectly equal increase; the decrease in silicon was always accompanied by an equivalent increase in the proportion of calcium [24].

Sodium to potassium transmutation

Invited to the Sahara Desert in 1959 by then Foreign Minister Jacques Soustelle, Kervran noticed a surprising fact. How was it possible that oil workers could withstand the harsh temperature conditions that occurred in summer? Kervran suspected that it had something to do with the fact that people in the area instinctively took sodium-rich sea salt in summer (dates from desert palm trees are also a rich sodium source) and he surmised that the transmutation of sodium to Potassium must necessarily generate an endothermic type reaction (absorption of heat).

This incident heat expels excess internal heat, in the same way, that the ingestion of tea and hot drinks are the keys to overcoming enormous desert heat, which is a contradiction. This was Kervran's intuition and to verify it, he analyzed the worker's urine during the harshest summer, he observed that the high amounts of excreted potassium could not have originated in the intake, but it had to originate in the transmutation of sodium from the extra salt ingested. He observed that in May, matching the moment in which average temperature begins to be above 37.8 °C; (the limit from which it will not drop until the end of October), the proportion of potassium in the urine begins to exceed that of sodium. Extreme temperatures will reach their zenith at the beginning of July, with temperatures exceeding 50 °C, coinciding with the maximum peak of the ratio of potassium to sodium (Kervran, 1989). It is important to observe that the critical temperature of 37.8°C is absolutely essential for countless vital processes. The key is to understand the role of the water molecule, do you now remember the chemical composition of the liquid where life began and developed?

Extending the investigations carried out in the Sahara desert, Kervran also confirmed that the transmutation of sodium to magnesium ($\text{Na} + \text{H} \rightarrow \text{Mg}$) occurred less exothermically (0.125u) than sodium to potassium ($\text{Na} + \text{O}^- \rightarrow \text{K}$) (0.0215u) that was triggered when the temperature exceeded 37°C in the same period from May to September. At temperatures lower than the threshold of 37°C , the process was reversed and the body required a supply of magnesium and/or potassium. The thermal factor was undoubtedly the determining factor that made some bacteria act or others, passing from one transmutation or another depending on the critical temperature. This phenomenon of stratified layers of magnesium, sodium and potassium salts can be observed in all the salt mines in the world and can give very important clues about the sudden climatic changes that Earth has suffered in the past by now including transmutation. Are we now beginning to see the change in science that cold transmutation entails? Hisotaki Komaki was a collaborator of Kervran. Komaki always calls transmutation “biological cold fusion”, he was a professor of Applied Microbiology at Mukogawa University and an expert in bacteria. Komaki was in charge of experiments and controlled trials in order to prove or disprove Kervran’s hypotheses [29,30]. Thus, Komaki showed that a small initial amount of product (potassium) was needed to considerably increase production from the reactant (sodium) and that this acted as a kind of “nuclear catalytic enzyme”. This explanation was widely supported by the 1965 Nobel laureates in medicine Francois Monod and Jacques Jacob. Therefore, experiments with transmutations could not work if you work in environments that are too sterile or perfect, that is, in highly purified substances. We want to point out here that for modern science energy can only be produced by and from chemical reactions (breaking bonds and recombination of elements), where the nucleus is never affected and everything can be explained by the laws that govern its atomic orbitals. This can be fully described when we speak about chemical reactions where life has no participation. In this context, modern science is right as Lavoisier was. However reality observation without prejudice tells us that this is not so simple or so

simplistic. There are other forms of energy such as “vital energy” (scalar, etheric...) and now we can affirm that some of them are strictly related to cold nuclear phenomena that intervene, for example, the process that keeps our body at a determined temperature of 37 °C. Taking this into account, Solomon Goldfein, a United States Army Scientist wondered where the elements present in the Komaki-Kervran transmutations could be found [31]. The answer was in the cell’s mitochondria. Once again, the fundamental role of bacteria is pointed out, since mitochondria, Lynn Margulis microbiologist demonstrated decades ago, are actually endosymbiotic bacteria of our cells [32,33]. The mitochondria are the part of the cell responsible for vital energy through the Krebs cycle. Therefore, Mg-ATP (molecule capable of storing energy, generated by breaking chemical bonds, to release it little by little in a cascade of successive chemical reactions that generate the Krebs cycle) could play a dual role: well-known and described by biochemists and a new one related to cold transmutation.

Human body, DNA, and Biophotons

The study on how transmutations can be the origin of high-frequency biophotons was studied by physicists Widom and collaborators [34]. Biophotons are light emanations, of the same nature as laser light). It is very coherent radiation, with a very specific monochromatic frequency, a perfect balance between the electrical and magnetic components that form it. They were discovered by Alexander Gurwitsch (1874-1954) and an entire explanatory theory was later developed by Friz Albert Popp (1938-2018) [35,36]. It is well known that DNA emits low-frequency biophotons, which Konstantin Meyl considers to be scalar magnetic waves and which, due to their enormous coherence, make DNA both an antenna and an emitter [37]. According to Popp, the DNA would then act as a laser generator that is capable of collecting photons from sunlight and other sources and converting them into coherent light. Thus, the coherent states of light that the cells emit originate in the DNA as a product of the interactions between the environmental electromagnetic waves where the

DNA would be like a tuner that vibrates in resonance with the said field in a phenomenon of cooperative synergy. Other studies confirm that the emission of biophotons as coherent ultraweak photoemission is observable in the chloroplasts of isolated spinach, even after they have undergone several hours of dark adaptation. This spontaneous light emission occurs in the presence of oxygen, so in this case, the respiratory chain of the chloroplasts is involved in a series of redox reactions that lead to excitation of the photon emitter, presumably Chlorophyll molecules. Other works show that the photons reinforce the electrons of the respiratory chain, so they emit the formation of ATP (adenosine triphosphate), even in the absence of oxygen and glucose. These were the main contributions by Popp in 1975 showing that every living being emits a faint and coherent light with a wavelength between 200 and 800 nanometers. They originate from electrons excited by sunlight, melanin, and other sources. The high coherence of the light of biophotons is what allows not only to transfer of energy, but also to be a means of cellular communication. Popp's research shows that the light emitted by the human body can play a decisive factor in the development of diseases and in maintaining health [38-40].

Help ?

Quick Enquiry

Mitochondria

Mitochondria are small organelles in cells that have their own DNA, different from ours, while the structure of our DNA is a double helix (with more than twenty-four thousand genes), the mitochondrial looks like a string of pearls with only thirty and eight genes). Mitochondrial DNA is passed down through genes from the mother. So the mitochondria literally represent the female life force recognized by the ancients and passed down from generation to generation. Just as cells millions of years ago thrived by cooperating with mitochondria, human bodies today can thrive by repairing and nurturing this feminine force. The mitochondria are relatively simple and consist of the outer membrane, inner membrane, proteins, lipids and mitochondrial DNA that bears

substantial similarity to bacterial DNA. Mitochondrial morphology is in a dynamic state that is continually changing, allowing the organelle to move, fuse, and fission according to the functional requirements of the cell. Mitochondria often referred to as “the power plants of the cell”, play an important role: as proposed in biological transmutation, in the cellular redox state, cell cycle regulation, and proliferation, apoptosis, signaling, immunity innate, aging, homeostasis, participate in temperature regulation through ATP (when hydrolyzed and reduced, releasing energy). Likewise, it has been described that they exhibit social behaviors-indicating high levels of complex information processing with intercommunication and coordination of activity- to the point that the sociality of mitochondria determines behavioral and functional results within and between tissues, affecting all aspects of health and vitality [41,42]. An especially prominent example is the direct effect of mitochondrial intercellular networks in the brain, which have direct effects and regulate behavior and cognition [43]. However, we must keep in mind that mitochondria are not an energy-independent organelle, which means that they require energy to carry out their precise and delicate functions, as well as to maintain their shape. Where does the energy needed by the cell come from? Mitochondria to carry out their delicate functions? [44]. The fundamental processes of generating energy through the splitting of water are amazingly precise and it is surprising that they have not changed since the beginning of time. The dissociation of the water molecule, which for example occurs inside the melanin granules, located mainly in the perinuclear space, limited by the membrane of the cell nucleus and externally by the rough endoplasmic reticulum, is a consistent explanation for the energy source not only of the mitochondria and the cell nucleus but of all the organelles and is even energy capable of explaining all cellular functions [45]. Unlike chlorophyll, the dissociation of water within melanin is reversible, with hydrogen being the truly valuable product, since it is the energy carrier par excellence throughout the universe [46]. On the other hand, we must resignify the idea that glucose is a source of energy (it is a

supplier of biomass). The idea that mitochondria by mysterious mechanisms can recover the energy stored in the covalent bonds of carbohydrates and other molecules and eventually produce ATP, is 95% theoretical. In pathological or stress situations, mitochondrial damage and dysfunction occurs, resulting in altered signaling pathways, modulation of transcriptional factors, immunity, and metabolic adaptation. However, the main problem is in the dissociation of the water molecule (interfered by pollution or intoxication) and since water is the source of energy for all cellular functions, the damage, as expected, is diffuse, generalized. Also noteworthy are the observations of naturopath John Neustadt and psychiatrist Steve Piezenick who found that medications have already become a major cause of mitochondrial damage, which may account for many adverse effects [47]. In short, mitochondria not only hold the key to our health, they also provide the fuel we need to access the higher neural networks that allow us to experience a higher state of consciousness.

Help ?

Mitochondrial viral role functionality

Numerous works show that viruses are an important store of a genetic memory information community, building an evolutionary dynamic and stability of the system [48,49,11]. Is in them where the genetic information is adapted to survive, in this biosphere [50]. Viruses, together with their regulators (prophages or proviruses), seem capable of doing practically everything necessary for life and participate in multiple mitochondrial functions, such as: promoting photosynthesis [51] providing essential genes for translation [52], in cytochrome p450 encoding [53], in the transfer of complete metabolic pathways [54], providing most of the protein folds [55], control placental-specific genes [56], control most aspects of innate and adaptive immune networks [57,58], or control the expression of the P53 protein [59]. Likewise, there is a considerable amount of complex processes and specific molecules of the eukaryotic cell of viral origin. Many are related to genetic information, such as mRNAs, linear chromosomes, translation transcript separation [60], polymerases [61], introns

Quick Enquiry

[62], telomeres and telomerase [63], or with processes related to cell division such as meiosis [64] or mitochondrial replication and transcription proteins [65].

Discussion

Rene K  es psychoanalyst thinker defines institutions as... “a set of forms and social structures instituted by custom and law, which regulate our relationships, pre-exist to us and imposed on us. This under a certain pattern tends to prevail in the permanence and prolongation of an instituted order, sustaining that it is the institutions that “seal men into a universe of values, create particular norms and reference systems... providing an organizing law... of physical life, mental life and individual social members” “It can be said although that each institution has a purpose that identifies and distinguishes it, (legal-religious functions; defensive or attack; productive-reproductive, etc.) the ultimate goal is existential since its main objective “is to collaborate with the maintenance... such as living forces of the community, allowing human beings to be able to live, love, work... and... create the world in his image” [66,67,68]. It arises to ask ourselves, how is it like that image that we build in an institution and in ourselves? Are we capable of perceiving how it changes according to the world, historical and socio-cultural time, that are we inhabiting? For this K  es will take the concept that he calls the instituted, which means, understanding the rules, what is said, what is written, what everyone knows how to, shows us and makes it clear how the roles should work within an instruction, how it operates and is built then, a subjectivity in it. On the contrary, the concept of instituting will always be understood as the one that contains and brings the rupture of that established form; comfortable. Why is this break necessary? To generate the necessary novelty to move forward. Then the instituting introduces the novelty that comes to break that instituted wants to change. As a consequence, any rupture generates in subjects: anguish, and resistance, which is armed in relation to the instituting [4]. In some way for each institution and each subject,

an instituting movement will never be welcomed because it contains ruptures in certain ways, however, it is the only possible way to change in the present time on behalf of creation, science, art and education. And again, that institution will later take the form of instituted until we put it in check again. This publication intends to develop this instituting movement in order to show complex dynamic behaviors to intercommunicate them with psycho-socio (micro) biological patterns, facilitating a more holistic model accompanying the knowledge of evolution. In the meantime, there is a continuous reactivity communication in our organism that biologists know perfectly well, and they try to explain exclusively in enzymatic and biochemical terms. However, biochemical energy is not enough to explain why our mammalian physiology occurs in such critical temperature conditions, involving systems that are invisible such as microorganisms, solar sources, water and emotions, among others. The point is that nature has learned, by emitting energy in form of extremely regular and coherent waves, to emit nuclear energy of gamma biophotons produced by transmutations in a harmless way. Hence the reversible character of transmutations was observed by Kervran-Komaki. Currently, the transmutations discovered and synthesized by numerous scientists have enormous implications for life processes, which turn animals and plants into authentic cold fusion power plants. Now we begin to understand that it is not necessary to give calcium to strengthen the bones, but other elements that modern science itself knows perfectly well, such as magnesium or silicon, but they do not explain why they can be so involved by not contemplating transmutation. The contemporary challenge continues to be the deep understanding of the multiple manifestations of life and its evolution, to clarify the meaning of human processes that we are experiencing, processes that we do not know or understand in all their complexity. Thus, we can conclude that the world is much more than what can be scientifically discovered about it, the universe is much more than its visible and measurable part and that

consciousness is much more than the activity of the brain. And that “much more”, is not something unknown by humankind, but it can be known and always throughout history, there have been a few men who have known it.

Author contributions

All authors have made a substantial direct and intellectual contribution to the work and approved it for publication. Each author contributed equally to all sections of the manuscript.

Conflict of interest

The authors that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential of interest.

Help ?

+ Acknowledgments

CCMA is Doctoral Fellow from CONICET and CS and MJC are members of the Research Career from CONICET.

Quick Enquiry

+ References

1. De Broglie L. 1947. Beyond the shifting limits of science, in *Revue de metaphysique et de morale*, n°3, p278
2. Avinash Chandra. 2016. *The Scientist and the Saint. The limits of science and the testimony of the wise*. Edit. Jose J de Olaneta. Barcelona
3. Theaux C, Scolaro L, Carlucci MJ. Viral musicality in harmony with nature. *Biology and Medicine. Biol Med (Aligarh)*. 2019; 11(2): 461 doi:10.35248/0974-8369.19.11.461
4. Castañeda MA, Sepulveda C, Carlucci MJ. In Time of global planetary challenges: *Metanoia*. *Austin Anthropol*. 2020; 4(1): 1016
5. Wallace BA. *The taboo of subjectivity: toward a new Science of Consciousness*. Oxford University Press, Oxford. 2004; 5

6. Castañeda MA, Sepulveda CS, Carlucci MJ. The Omnipresent Power of the Invisible: from Visuses to Being Conscient. *World Journal of Advanced Research and Reviews*. 2021; 12(02): 518–525. DOI: <https://doi.org/10.30574/wjarr.2021.12.2.0617>
7. Smith H. *Forgotten Truth: The Common vision of the World's religions*. HarperOne. New York. 1992; 41-42
8. Lings M. Signs of the times, in *Studies in comparative religion*. 1970; 4 (1) www.studiesincomparativereligion.com
9. Eaton G. The Earth's complaint, in *The Essential Sophia*. Ed by Seyyed Hossein Nasr & Katherine O'Brien. World Wisdom, Bloomington IN. 2006; 236-237:240. www.wordwisdom.com
10. Watson I. The anti-wisdom of modern Philosophy: A passing note. *Studies in comparative Religion*. 1972; 6:4.
11. Scolaro LA, Roldan JS, Theaux C, Damonte EB, Carlucci MJ. Experimental Aspects Suggesting a "Fluxus" of Information in the Virions of Herpes Simplex Virus Populations. *Front Microbiol*. 2017 Dec 22;8:2625. doi: 10.3389/fmicb.2017.02625. PMID: 29375500; PMCID: PMC5770744.
12. Plotino. *Eneadas*. 2015; 3:12. Edit Gredos
13. Sheehan DP, Capek V. Challenges to the second law of thermodynamics: theory and experiment. Chapter 1.4. Springer. 2005.
14. Rush JH. *The dawn of life*. Signet. New York. 1962; 35
15. Wicken J. Evolutionary self-organization and entropic dissipation in biological and socioeconomic systems. *Journal of Social and Biological Systems*. 1986; 9(3): 261-73
16. Room A. *Magna Ciencia. A journey through outlaw knowledge*. Book 1. Second Edition. 2019; 102:241-253; 157-160. Cauac Editorial Nativa, Spain.
17. Tompkins C. *The Secret Life of Plants*. Ed. Captain Swing. Chapter 17. 2016.
18. Preuss WH. *spirit and matter. Explaining the relationship between the world and man according to the testimony*. The coming day publishing house, Stuttgart. 1899
19. Figols F. *Cosmos and Gea. Foundations of a new theory of Evolution*. Ed. Kairos, Barcelona. Spain. 2007.
20. Steiner R. *The Occult Science*. Publisher Rudolf Steiner. 2014
21. Martí E. *The four ethers*. Publisher Pau of Damascus. 1977.
22. Kervran CL. *Komaki's Experiments, First Series of Research in Biological Evidence of Low-Energy Transmutations*. Ed. Maloine, Paris. 1975.
23. Kervran CL. *iological Transmutations*. Happies Pr. 1989.
24. Kervran CL. *Evidence in Geology and Physics of Transmutatiomni a Debole Energía.*, Macro Editions. 2007
25. Champion J. *Method for Transmutation of select isotopes of individual elements from compositions such*. Patente WO9403905A1. 1994.
26. Champion J. *Methods for producing mutant microbes useful for precious metal and bioenergy production*. Patente EEUU 20080081359. 2008.

27. Putney A. Resonant Atomic Transmutations of Deuterium. Artículo de Web Human Resonance. 2014.
28. Putney A. Resonance in atomic conversion. Phonon Transfer Alchemy: Lead to Gold. Web Human Resonance article. 2018
29. Komaki H. Production of proteins by 29 strains of microorganisms and increase in potassium in sodium culture medium without potassium. *Journal of Comparative Pathology*. 1967; 67:213
30. Komaki H. Formation of proteins and mineral variations by microorganisms in culture medium, fate with or without potassium, fate with or without. *Journal of Comparative Pathology*. 1969; 69:83
31. Goldfein S. Energy development from elemental transmutations in biological systems. U.S. Army Mobility Equipment Research and Development Command. 1978. Report 2247
32. Margulis L, Sagan D. The origin of the eukaryotic cell. *Scientific World*. 1985; 5:46
33. Margulis L, Sagan D. What is life? Simon & Schuster. New York, London. 1995.
34. Widom A, Srivastava YN, Sivassubramanian S. Biological Nuclear Transmutations as a Source of Biophotons. Cornell University Library. 2011.
35. Belousov LV, Opitz JM, Gilbert SF. Life of Alexander G. Gurwitsch and his relevant contribution to the theory of morphogenetic fields. *Int J Dev Biol*. 1997 Dec;41(6):771-7; comment 778-9. PMID: 9449452.
36. Popp FA, Li KH, Gu Q. Recent Advances in Biophoton Research and Its Applications. Edit. World Scientific Publishing. Singapore. 1992.
37. Meyl K. DNA and cell resonance: magnetic waves enable cell communication. *DNA Cell Biol*. 2012 Apr;31(4):422-6. doi: 10.1089/dna.2011.1415. Epub 2011 Oct 19. Retraction in: *DNA Cell Biol*. 2013 Mar;32(3):138. PMID: 22011216.
38. Korotkov K, Aura and Consciousness: New stage of scientific understanding. Edit. Russian Ministry of Culture. 1999.
39. Korotkov K, Human Energy field with GDV bioelectrography. Edit Backbone Publishing. 2002.
40. Olive AM. What your light says. A journey from technology to consciousness. Syrian Publisher. 2014.
41. Picard M, Sandi C. The social nature of mitochondria: Implications for human health. *Neurosci Biobehav Rev*. 2021 Jan;120:595-610. doi: 10.1016/j.neubiorev.2020.04.017. Epub 2020 Jul 8. PMID: 32651001; PMCID: PMC8058501.
42. Vincent AE, Turnbull DM, Eisner V, Hajnóczky G, Picard M. Mitochondrial Nanotunnels. *Trends Cell Biol*. 2017 Nov;27(11):787-799. doi: 10.1016/j.tcb.2017.08.009. Epub 2017 Sep 19. PMID: 28935166; PMCID: PMC5749270.
43. Rosenberg A, Saggat M, Rogu P, Limoges AW, Sandi C, Mosharov EV, Dumitriu D, Anacker Ch, Picard M. Mouse brain-wide mitochondrial connectivity anchored in gene, brain, and behavior bioRxiv preprint. 2021. doi: <https://doi.org/10.1101/2021.06.02.446767>;
44. Herrera AS. Mythical mitochondrial function in lung health and disease *Gerontol & Geriatric stud*. 2020; 6(3). GGS. 000638.2020. DOI: 10.31031/GGS.2020.06.000638
45. Herrera AS. The origin of life according to melanin. *MOJ Cell Science & Report*. 2018; 5(1):00105. DOI: 10.15406/mojcsr.2018.05.00105
46. Herrera AS, Del C A Esparza M, Md Ashraf G, Zamyatnin AA, Aliev G. Beyond mitochondria, what would be the energy source of the cell? *Cent Nerv Syst Agents Med Chem*. 2015;15(1):32-41. doi:

10.2174/1871524915666150203093656. PMID: 25645910.

47. Neustadt J, Pieczenik SR. Medication-induced mitochondrial damage and disease. *Mol Nutr Food Res*. 2008 Jul;52(7):780-8. doi: 10.1002/mnfr.200700075. PMID: 18626887.
48. Artuso MC, Roldán JS, Scolaro LA, Carlucci MJ. Viruses: As mediators in "Élan vital" of the "creative" evolution. *Infect Genet Evol*. 2016 Dec;46:78-84. doi: 10.1016/j.meegid.2016.10.028. Epub 2016 Nov 1. PMID: 27810499.
49. Carlucci MJ, Damonte EB, Scolaro LA. Virus driven evolution: a probable explanation for "Similia Similibus Curantur" philosophy. *Infect Genet Evol*. 2011 Jul;11(5):798-802. doi: 10.1016/j.meegid.2011.02.010. Epub 2011 Feb 21. PMID: 21345381.
50. Sandin M. Thinking about evolution, thinking about life. Cauac Editorial Native. Spain. 2010.
51. Lindell D, Sullivan MB, Johnson ZI, Tolonen AC, Rohwer F, Chisholm SW. Transfer of photosynthesis genes to and from *Prochlorococcus* viruses. *Proc Natl Acad Sci U S A*. 2004 Jul 27;101(30):11013-8. doi: 10.1073/pnas.0401526101. Epub 2004 Jul 15. PMID: 15256601; PMCID: PMC503735.
52. Abergel C, Rudinger-Thirion J, Giegé R, Claverie JM. Virus-encoded aminoacyl-tRNA synthetases: structural and functional characterization of mimivirus TyrRS and MetRS. *J Virol*. 2007 Nov;81(22):12406-17. doi: 10.1128/JVI.01107-07. Epub 2007 Sep 12. PMID: 17855524; PMCID: PMC2169003.
53. Lamb DC, Lei L, Warrilow AG, Lepesheva GI, Mullins JG, Waterman MR, Kelly SL. The first virally encoded cytochrome p450. *J Virol*. 2009 Aug;83(16):8266-9. doi: 10.1128/JVI.00289-09. Epub 2009 Jun 10. PMID: 19515774; PMCID: PMC2715754.
54. Monier A, Pagarete A, de Vargas C, Allen MJ, Read B, Claverie JM, Ogata H. Horizontal gene transfer of an entire metabolic pathway between a eukaryotic alga and its DNA virus. *Genome Res*. 2009 Aug;19(8):1441-9. doi: 10.1101/gr.091686.109. Epub 2009 May 18. PMID: 19451591; PMCID: PMC2720186.
55. Abroi A, Gough J. Are viruses a source of new protein folds for organisms? - Virosphere structure space and evolution. *Bioessays*. 2011 Aug;33(8):626-35. doi: 10.1002/bies.201000126. Epub 2011 Jun 1. PMID: 21633962.
56. Lynch VJ, Leclerc RD, May G, Wagner GP. Transposon-mediated rewiring of gene regulatory networks contributed to the evolution of pregnancy in mammals. *Nat Genet*. 2011 Sep 25;43(11):1154-9. doi: 10.1038/ng.917. PMID: 21946353.
57. Hengel H, Koszinowski UH, Conzelmann KK. Viruses know it all: new insights into IFN networks. *Trends Immunol*. 2005 Jul;26(7):396-401. doi: 10.1016/j.it.2005.05.004. PMID: 15922665.
58. Miller-Kittrell M, Sparer TE. Feeling manipulated: cytomegalovirus immune manipulation. *Virol J*. 2009 Jan 9;6:4. doi: 10.1186/1743-422X-6-4. PMID: 19134204; PMCID: PMC2636769.
59. Wang T, Zeng J, Lowe CB, Sellers RG, Salama SR, Yang M, Burgess SM, Brachmann RK, Haussler D. Species-specific endogenous retroviruses shape the transcriptional network of the human tumor suppressor protein p53. *Proc Natl Acad Sci U S A*. 2007 Nov 20;104(47):18613-8. doi: 10.1073/pnas.0703637104. Epub 2007 Nov 14. PMID: 18003932; PMCID: PMC2141825.
60. Bell PJ. Viral eukaryogenesis: was the ancestor of the nucleus a complex DNA virus? *J Mol Evol*. 2001 Sep;53(3):251-6. doi: 10.1007/s002390010215. PMID: 11523012.

61. Villarreal LP, DeFilippis VR. A hypothesis for DNA viruses as the origin of eukaryotic replication proteins. *J Virol*. 2000 Aug;74(15):7079-84. doi: 10.1128/jvi.74.15.7079-7084.2000. PMID: 10888648; PMCID: PMC112226.
62. Fedorov A, Roy S, Fedorova L, Gilbert W. Mystery of intron gain. *Genome Res*. 2003 Oct;13(10):2236-41. doi: 10.1101/gr.1029803. Epub 2003 Sep 15. PMID: 12975308; PMCID: PMC403686.
63. Schawalder J, Paric E, Neff NF. Telomere and ribosomal DNA repeats are chromosomal targets of the bloom syndrome DNA helicase. *BMC Cell Biol*. 2003 Oct 27;4:15. doi: 10.1186/1471-2121-4-15. PMID: 14577841; PMCID: PMC270065.
64. Bell PJ. Sex and the eukaryotic cell cycle is consistent with a viral ancestry for the eukaryotic nucleus. *J Theor Biol*. 2006 Nov 7;243(1):54-63. doi: 10.1016/j.jtbi.2006.05.015. Epub 2006 May 25. PMID: 16846615.
65. Shutt TE, Gray MW. Bacteriophage origins of mitochondrial replication and transcription proteins. *Trends Genet*. 2006 Feb;22(2):90-5. doi: 10.1016/j.tig.2005.11.007. Epub 2005 Dec 20. PMID: 16364493.
66. Käes R. *Psychic reality and suffering in institutions*. Buenos Aires: Paidós. 1989.
67. Kaës R, Bleger J, Enriquez E, Fornari F, Fustier P. *The Institution and the institutions*. Psychoanalytic Studies. Buenos Aires. Paid. 1989.
68. Arito S, Cerini L, Cordero M, Ricoli A. *Institutions and their influence on the construction of intersubjectivity today. Militancy and Youth Policies*. Ed. Graciela Castro. TheseoPress. Buenos Aires. <https://www.teseopress.com/militanciaspoliticas>. 2018.

Help ?

Quick Enquiry

+ Advertisement

Discover a bigger impact and Visibility of your Article publication With Peertechz Publications

Highlights

- Signatory Publisher of **ORCID**
- Signatory Publisher of **DORA** (San Francisco Declaration on Research Assessment)
- Articles archived in worlds' renowned service providers such as portico, CNKI, AGRIS, TDNet, Base(Bielefeld University Library), CrossRef, Scilit, J-Gate etc.
- Journals indexed in ICMJE, SHERPA/ROMEO, Google Scholar etc.
- OAI-PMH (Open Archives initiative Protocol for Metadata Harvesting)
- Dedicated Editorial Board for every Journal
- Accurate and rapid peer-review process
- Increased citations of published articles through promotions
- Reduced timeline for article publication

Submit your Articles and experience a new surge in publication services

<https://www.peertechzpublications.com/submission>

Peertechz Journals Wishes everlasting success in your every endeavours.

(<https://www.peertechzpublications.com/submission>)

[Help ?](#)[Quick Enquiry](#)[Check for updates \(https://crossmark.crossref.org/dialog/?](https://crossmark.crossref.org/dialog/?doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27)[doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27 \)](https://crossmark.crossref.org/dialog/?doi=10.17352/gje.000066&domain=pdf&date_stamp=2022-09-27)[Download as ▼](#)[Order for reprints \(mailto:reprints@peertechzpublications.com\)](mailto:reprints@peertechzpublications.com)[Send URL to Your Friend](#)

Article Alerts

Subscribe to our articles alerts and stay tuned.

Subscribe Now!



(<https://creativecommons.org/licenses/by/4.0/>) This work is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>).

Help ?

Quick Enquiry